Author index

Abad, A. *see* Lyznik, L.A.
Abel, G. *see* Görlach, J.
Abel, S. and Theologis, A. *A polymorphic bipartite motif signals nuclear targeting of early auxin-inducible proteins related to PS-IAA4 from pea* (Pisum sativum) 87
Ageorges, A. *see* Dietz, K.-J.
Ahmad, M., Lin, C. and Cashmore, A.R. *Mutations throughout an* Arabidopsis *blue-light photoreceptor impair blue-light-responsive anthocyanin accumulation and inhibition of hypocotyl elongation* 653
Ali, N. *see* McKinney, E.C.
Allard, F. *see* Houde, M.
Alvarez, J. *see* Bennett, S.R.M.
Amrhein, N. *see* Görlach, J.
Antosiewicz, D.M., Polisensky, D.H. and Braam, J. *Cellular localization of the Ca^{2+} binding TCH3 protein of* Arabidopsis 623
Arbinger, B. *see* Dietz, K.-J.
Ariza, M.J. *see* Giranton, J.-L.
Armstrong, F. and Blatt, M.R. *Evidence for K^+ channel control in* Vicia *guard cells coupled by G-proteins to a 7TMS receptor mimetic* 187
Artsaenko, O., Peisker, M., zur Nieden, U., Fiedler, U., Weiler, E.W., Müntz, K. and Conrad, U. *Expression of a single-chain Fv antibody against abscisic acid creates a wilty phenotype in transgenic tobacco* 745
Atanassova, R., Favet, N., Martz, F, Chabbert, B., Tollier, M.-T., Monties, B., Fritig, B. and Legrand, M. *Altered lignin composition in transgenic tobacco expressing O-methyltransferase sequences in sense and antisense orientation* 465
Atkinson, H.J. *see* Urwin, P.E.
Ausubel, F.M. *see* Shirley, B.W.

Bacic, A. *see* Mau, S.-L.
Badillo, A. *see* Hugueney, P.
Bahk, J.D. *see* Hong, J.C.
Baillieul, F., Genetet, I., Kopp, M., Saindrenan, P., Fritig, B. and Kauffmann, S. *A new elicitor of the hypersensitive response in tobacco: a fungal glycoprotein elicits cell death, expression of defence genes, production of salicylic acid, and induction of systemic acquired resistance* 551
Bashaw, E.C. *see* Vielle, J.-Ph.
Baucher, M. *see* Van Doorsselaere, J.
Baulcombe, D.C. *see* Bendahmane, A.
Bauwe, H. *see* Kopriva, S.
Bellini, C. *see* Creusot, F.
Belostotsky, D.A. *see* McKinney, E.C.
Bendahmane, A., Köhm, B.A., Dedi, C. and Baulcombe, D.C. *The coat protein of potato virus X is a strain-specific elicitor of Rx1-mediated virus resistance in potato* 933
Bennett, S.R.M., Alvarez, J., Bossinger, G. and Smyth, D.R. Morphogenesis in pinoid *mutants of* Arabidopsis thaliana 505
Benveniste, P. *see* Gachotte, D.
Bhattacharyya, M.K. *see* Shi, J.
Bi, Y.-M., Kenton, P., Mur, L., Darby, R. and Draper, J. *Hydrogen peroxide does not function downstream of salicylic acid in the induction of PR protein expression* 235
Billault, A. *see* Creusot, F.
Bisseling, T. *see* Vijn, I.
Blatt, M.R. *see* Armstrong, F.
Bleecker, A.B. *see* Grbić, V.
Bobb, A.J., Eiben, H.G. and Bustos, M.M. *PvAlf, an embryo-specific acidic transcriptional activator enhances gene expression from phaseolin and phytohemagglutinin promoters* 331
Boerjan, W. *see* Van Doorsselaere, J.
Boronat, A. *see* Lumbreras, V.
Bossinger, G. *see* Bennett, S.R.M.
Bouchez, D. *see* Creusot, F.
Braam, J. *see* Antosiewicz, D.M.
Bramley, P.M. *see* Fray, R.G.
Brearley, C.A. *see* Parmar, P.N.
Briat, J.-F. *see* Lobréaux, S.
Brigham, J.E. *see* Whitney, S.E.C.
Brinkmann, H. *see* Stallmeyer, B.
Broadbent, P., Creissen, G.P., Kular, B., Wellburn, A.R. and Mullineaux, P.M. *Oxidative stress responses in transgenic tobacco containing altered levels of glutathione reductase activity* 247
Broday, L. *see* Samach, A.
Brown, B.A. *see* Jackson, J.A.
Bruggemann, E. *see* Shirley, B.W.
Bulone, V., Fincher, G.B. and Stone, B.A. In vitro *synthesis of a microfibrillar (1→3)-β-glucan by a ryegrass* (Lolium multiflorum) *endosperm (1→3)-β-glucan synthase enriched by product entrapment* 213
Burson, B.L. *see* Vielle, J.-Ph.
Bustos, M.M. *see* Bobb, A.J.

Caboche, M. *see* Creusot, F.
Camara, B. *see* Hugueney, P.
Camilleri, C. *see* Creusot, F.
Campos, N. *see* Lumbreras, V.
Carpita, N.C. *see* Stacey, N.J.
Cashmore, A.R. *see* Ahmad, M.
Chabbert, B. *see* Atanassova, R.
Chabbert, B. *see* Van Doorsselaere, J.
Chabouté, M.-E. *see* Creusot, F.
Chadwick, B.P. *see* Thomas, C.M.
Chaudhuri, S. *see* Swarup, S.
Chen, C.-G. *see* Mau, S.-L.
Chen, H.-C. *see* Hugueney, P.
Cheong, Y.H. *see* Hong, J.C.
Cho, M.J. *see* Hong, J.C.
Chognot, E. *see* Van Doorsselaere, J.
Ciceri, P. *see* Lund, G.
Clarke, A.E. *see* Mau, S.-L.
Cock, J.M. *see* Giranton, J.-L.
Cohen, D. *see* Creusot, F.
Collinge, D.B. *see* Zhang, Z.
Conrad, U. *see* Artsaenko, O.
Cornu, D. *see* Van Doorsselaere, J.
Cosgrove, D.J. *see* Keller, E.
Cossu, R. *see* Kopriva, S.
Coté, G.G. *see* Huang, C.-H.
Crain, R.C. *see* Huang, C.-H.
Creissen, G., Reynolds, H., Xue, Y. and Mullineaux, P. *Simultaneous targeting of pea glutathione reductase and of a bacterial fusion protein to chloroplasts and mitochondria in transgenic tobacco* 167
Creissen, G.P. *see* Broadbent, P.
Creusot, F., Fouilloux, E., Dron, M., Lafleuriel, J., Picard, G., Billault, A., Le Paslier, D., Cohen, D., Chabouté, M.-E., Durr, A., Fleck, J., Gigot, C., Camilleri, C., Bellini, C., Caboche, M. and

Bouchez, D. *The CIC library: a large insert YAC library for genome mapping in* Arabidopsis thaliana 763

Daniel, C. *see* Houde, M.
Darby, R. *see* Bi, Y.-M.
Darke, A.H. *see* Whitney, S.E.C.
das Neves, L. *see* Vijn, I.
Davies, G.J. *see* Kilby, N.J.
Dedi, C. *see* Bendahmane, A.
Dehesh, K., Smith, L.G., Tepperman, J.M. and Quail, P.H. *Twin autonomous bipartite nuclear localization signals direct nuclear import of GT-2* 25
Dietz, K.-J., Rudloff, S., Ageorges, A., Eckerskorn, C., Fischer, K. and Arbinger, B. *Subunit E of the vacuolar H^+-ATPase of* Hordeum vulgare *L.: cDNA cloning, expression and immunological analysis* 521
Doelling, J.H. and Pikaard, C.S. *The minimal ribosomal RNA gene promoter of* Arabidopsis thaliana *includes a critical element at the transcription initiation site* 683
Dolan, L. *see* Tanimoto, M.
Döring, H.-P. *see* Tacke, E.
Draper, J. *see* Bi, Y.-M.
Dron, M. *see* Creusot, F.
Dumas, C. *see* Giranton, J.-L.
Durr, A. *see* Creusot, F.

Eckerskorn, C. *see* Dietz, K.-J.
Edwards, A., Marshall, J., Sidebottom, C., Visser, R.G.F., Smith, A.M. and Martin, C. *Biochemical and molecular characterization of a novel starch synthase from potato tubers* 283
Eiben, H.G. *see* Bobb, A.J.
Esser, J.E. *see* Kelly, W.B.
Estelle, M. *see* Timpte, C.

Fan, H., Yakura, K., Miyanishi, M., Sugita, M. and Sugiura, M. In vitro *transcription of plant RNA polymerase I-dependent rRNA genes is species-specific* 295
Favet, N. *see* Atanassova, R.
Feldman, L.J. *see* Hempel, F.D.
Feldmann, K.A. *see* McKinney, E.C.
Fiedler, U. *see* Artsaenko, O.
Fincher, G.B. *see* Bulone, V.
Fischer, K. *see* Dietz, K.-J.
Fleck, J. *see* Creusot, F.
Fouilloux, E. *see* Creusot, F.
Frankard, V. *see* Ghislain, M.
Franklin, F.C.H. see Franklin-Tong, V.E.
Franklin-Tong, V.E., Ride, J.P. and Franklin, F.C.H. *Recombinant stigmatic self-incompatibility (S-) protein elicits a Ca^{2+} transient in pollen of* Papaver rhoeas 299
Fraser, P.D. *see* Fray, R.G.
Fray, R.G., Wallace, A., Fraser, P.D., Valero, D., Hedden, P., Bramley, P.M. and Grierson, D. *Constitutive expression of a fruit phytoene synthase gene in transgenic tomatoes causes dwarfism by redirecting metabolites from the gibberellin pathway* 693
Friedrich, L. *see* Neuenschwander, U.
Fritig, B. *see* Atanassova, R.
Fritig, B. *see* Baillieul, F.
Fuglevand, G. *see* Jackson, J.A.
Fujishige, K. *see* Kohchi, T.

Gachotte, D., Meens, R. and Benveniste, P. *An* Arabidopsis *mutant deficient in sterol biosynthesis: heterologous complementation by* ERG 3 *encoding a Δ^7-sterol-C-5-desaturase from yeast* 407
Galbraith, D.W. *see* Sheen, J.
Gantt, J.S. *see* Vance, C.P.
Gaude, T. *see* Giranton, J.-L.
Genetet, I. *see* Baillieul, F.
Ghislain, M., Frankard, V. and Jacobs, M. *A dinucleotide mutation in dihydrodipicolinate synthase of* Nicotiana sylvestris *leads to lysine overproduction* 733
Gidley, M.J. *see* Whitney, S.E.C.
Gigot, C. *see* Creusot, F.
Giranton, J.-L., Ariza, M.J., Dumas, C., Cock, J.M. and Gaude, T. *The S locus receptor kinase gene encodes a soluble glycoprotein corresponding to the SRK extracellular domain in* Brassica oleracea 827
Glyn, M.C.P. and Leitch, A.R. *The distribution of a spliceosome protein in cereal* (Triticeae) *interphase nuclei from cells with different metabolic activities and through the cell cycle* 531
Gonzales, R.A. *see* Shi, J.
Goodman, H.M. *see* Hwang, I.
Goodman, H.M. *see* Shirley, B.W.
Görlach, J., Raesecke, H.-R., Abel, G., Wehrli, R., Amrhein, N. and Schmid, J. *Organ-specific differences in the ratio of alternatively spliced chorismate synthase* (LeCS2) *transcripts in tomato* 451
Görnhardt, B. *see* Jach, G.
Grbić, V. and Bleecker, A.B. *Ethylene regulates the timing of leaf senescence in* Arabidopsis 595
Gregerson, R.G. *see* Vance, C.P.
Grierson, D. *see* Fray, R.G.

Hahlbrock, K. *see* Logemann, E.
Haley, A., Hunter, T., Kiberstis, P. and Zimmern, D. *Multiple serine phosphorylation sites on the 30 kDa TMV cell-to-cell movement protein synthesized in tobacco protoplasts* 715
Hareven, D. *see* Samach, A.
Hariguchi, N. *see* Setiady, Y.Y.
Hayman, D. *see* Li, X.
Hedden, P. *see* Fray, R.G.
Heidmann, I. *see* ten Lohuis, M.
Hempel, F.D. and Feldman, L.J. *Specification of chimeric flowering shoots in wild-type* Arabidopsis 725
Hirayama, L. *see* Lyznik, L.A.
Hirschberg, J. *see* Hugueney, P.
Hlousek-Radojcic, A., Imai, H. and Jaworksi, J.G. *Oleoyl-CoA is not an immediate substrate for fatty acid elongation in developing seeds of* Brassica napus 803
Hodges, T.K. *see* Lyznik, L.A.
Hong, J.C., Cheong, Y.H., Nagao, R.T., Bahk, J.D., Key, J.L. and Cho, M.J. *Isolation of two soybean G-box binding factors which interact with a G-box sequence of an auxin-responsive gene* 199
Horejsi, T.F. *see* Hulskamp, M.
Houde, M., Daniel, C., Lachapelle, M., Allard, F., Laliberté, S. and Sarhan, F. *Immunolocalization of freezing-tolerance-associated proteins in the cytoplasm and nucleoplasm of wheat crown tissues* 583
Huang, C.-H., Tate, B.F., Crain, R.C. and Coté, G.G. *Multiple phosphoinositide-specific phospholipases C in oat roots: characterization and partial purification* 257
Hübel, A. *see* Lee, J.H.
Hugueney, P., Badillo, A., Chen, H.-C., Klein, A., Hirschberg, J.,

Camara, B. and Kuntz, M. *Metabolism of cyclic carotenoids: a model for the alteration of this biosynthetic pathway in* Capsicum annuum *chromoplasts* 417
Hülskamp, M., Kopczak, S.D., Horejsi, T.F., Kihl, B.K. and Pruitt, R.E. *Identification of genes required for pollen-stigma recognition in* Arabidopsis thaliana 703
Hunter, T. *see* Haley, A.
Hussey, M.A. *see* Vielle, J.-Ph.
Hwang, I. and Goodman, H.M. *An* Arabidopsis thaliana *root-specific kinase homolog is induced by dehydration, ABA, and NaCl* 37
Hwang, S. *see* Sheen, J.

Imai, H. *see* Hlousek-Radojcic, A.
Inzé, D. *see* Van Doorsselaere, J.

Jach, G., Görnhardt, B., Mundy, J., Logemann, J., Pinsdorf, E., Leah, R., Schell, J. and Maas, C. *Enhanced quantitive resistance against fungal disease by combinatorial expression of different barley antifungal proteins in transgenic tobacco* 97
Jackson, J.A., Fuglevand, G., Brown, B.A., Shaw, M.J. and Jenkins, G.I. *Isolation of* Arabidopsis *mutants altered in the light-regulation of chalcone synthase gene expression using a transgenic screening approach* 369
Jacobs, M. *see* Ghislain, M.
Jaworksi, J.G. *see* Hlousek-Radojcic, A.
Jenkins, G.I. *see* Jackson, J.A.
Johansson, F. *see* Olsson, A.
Jones, D.A. *see* Thomas, C.M.
Jones, J.D.G. *see* Kunze, R.
Jones, J.D.G. *see* Thomas, C.M.
Jouanin, L. *see* Van Doorsselaere, J.

Kauffmann, S. *see* Baillieul, F.
Keller, E. and Cosgrove, D.J. *Expansins in growing tomato leaves* 795
Kelly, A.J. and Meeks-Wagner, D.R. *Characterization of a gene transcribed in the L2 and L3 layers of the tobacco shoot apical meristem* 147
Kelly, W.B., Esser, J.E. and Schroeder, J.I. *Effects of cytosolic calcium and limited, possible dual, effects of G protein modulators on guard cell inward potassium channels* 479
Kenton, P. *see* Bi, Y.-M.
Kessmann, H. *see* Neuenschwander, U.
Key, J.L. *see* Hong, J.C.
Kiberstis, P. *see* Haley, A.
Kihl, B.K. *see* Hulskamp, M.
Kilby, N.J., Davies, G.J., Snaith, M.R. and Murray, J.A.H. *FLP recombinase in transgenic plants: constitutive activity in stably transformed tobacco and generation of marked cell clones in* Arabidopsis 637
Klein, A. *see* Hugueney, P.
Kobayashi, H. *see* Sheen, J.
Kohchi, T., Fujishige, K. and Ohyama, K. *Construction of an equalized cDNA library from* Arabidopsis thaliana 771
Köhm, B.A. *see* Bendahmane, A.
Koornneef, M. *see* Shirley, B.W.
Kopczak, S.D. *see* Hulskamp, M.
Kopp, M. *see* Baillieul, F.
Kopriva, S., Cossu, R. and Bauwe, H. *Alternative splicing results in two different transcripts for H-protein of the glycine cleavage system in the C_4 species* Flaveria trinervia 435
Korfhage, C. *see* Tacke, E.
Kost, B., Schnorf, M., Potrykus, I. and Neuhaus, G. *Non-destructive detection of firefly luciferase (LUC) activity in single plant cells using a cooled, slow-scan CCD camera and an optimized assay* 155
Kouchi, H. *see* Setiady, Y.Y.
Kranz, E., von Wiegen, P. and Lörz, H. *Early cytological events after induction of cell division in egg cells and zygote development following* in vitro *fertilization with angiosperm gametes* 9
Kubasek, W.L. *see* Shirley, B.W.
Kühn, S. *see* Kunze, R.
Kular, B. *see* Broadbent, P.
Kuntz, M. *see* Hugueney, P.
Kunze, R., Kühn, S., Jones, J.D.G. and Scofield, S.R. *Somatic and germinal activities of maize* Activator *(Ac) transposase mutants in transgenic tobacco* 45

Lachapelle, M. *see* Houde, M.
Lafleuriel, J. *see* Creusot, F.
Laliberté, S. *see* Houde, M.
Lambert, A.-M. *see* Nick, P.
Langridge, P. *see* Li, X.
Lanzini, S. *see* Tacke, E.
Larsson, C. *see* Olsson, A.
Le Paslier, D. *see* Creusot, F.
Leah, R. *see* Jach, G.
Lee, J.H., Hübel, A. and Schöffl, F. *Derepression of the activity of genetically engineered heat shock factor causes constitutive synthesis of heat shock proteins and increased thermotolerance in transgenic* Arabidopsis 603
Legrand, M. *see* Atanassova, R.
Leitch, A.R. *see* Glyn, M.C.P.
Leplé, J.-C. *see* Van Doorsselaere, J.
Lerner, D.R. *see* Mena, M.
Li, S.F. and Parish, R.W. *Isolation of two novel* myb*-like genes from* Arabidopsis *and studies on the DNA-binding properties of their products* 963
Li, X., Nield, J., Hayman, D. and Langridge, P. *Thioredoxin activity in the C terminus of* Phalaris *S protein* 133
Lifschitz, E. *see* Samach, A.
Lin, C. *see* Ahmad, M.
Lincoln, C. *see* Timpte, C.
Liu, Y.-G., Mitsukawa, N., Oosumi, T. and Whittier, R.F. *Efficient isolation and mapping of* Arabidopsis thaliana *T-DNA insert junctions by thermal asymmetric interlaced PCR* 457
Lobréaux, S., Thoiron, S. and Briat, J.-F. *Induction of ferritin synthesis in maize leaves by an iron-mediated oxidative stress* 443
Logemann, E., Wu, S.-C., Schröder, J., Schmelzer, E., Somssich, I.E. and Hahlbrock, K. *Gene activation by UV light, fungal elicitor or fungal infection in* Petroselinum crispum *is correlated with repression of cell cycle-related genes* 865
Logemann, J. *see* Jach, G.
Lörz, H. *see* Kranz, E.
Lumbreras, V., Campos, N. and Boronat, A. *The use of an alternative promoter in the* Arabidopsis thaliana HMG1 *gene generates an mRNA that encodes a novel 3-hydroxy-3-methylglutaryl coenzyme A reductase isoform with an extended N-terminal region* 541
Lund, G., Ciceri, P. and Viotti, A. *Maternal-specific demethylation and expression of specific alleles of zein genes in the endosperm of* Zea mays *L.* 571
Lyznik, L.A., Hirayama, L., Rao, K.V., Abad, A. and Hodges, T.K. *Heat-inducible expression of FLP gene in maize cells* 177

Maas, C. *see* Jach, G.
Maddaloni, M. *see* Tacke, E.
Mandel, M.A. *see* Mena, M.
Marshall, J. *see* Edwards, A.
Martin, C. *see* Edwards, A.
Martinez-Abarca, F. *see* Vijn, I.
Martz, F *see* Atanassova, R.
Masson, F. and Rossignol, M. *Basic plasticity of protein expression in tobacco leaf plasma membrane* 77
Matsuoka, K., Watanabe, N. and Nakamura, K. *O-glycosylation of a precursor to a sweet potato vacuolar protein, sporamin, expressed in tobacco cells* 877
Mau, S.-L., Chen, C.-G., Pu, Z.-Y., Moritz, R.L., Simpson, R.J., Bacic, A. and Clarke, A.E. *Molecular cloning of cDNAs encoding the protein backbones of arabinogalactan-proteins form the filtrate of suspension-cultured cells of* Pyrus communis *and* Nicotiana alata 269
McCann, M.C. *see* Stacey, N.J.
McDowell, J.M. *see* McKinney, E.C.
McKinney, E.C., Ali, N., Traut, A., Feldmann, K.A., Belostotsky, D.A., McDowell, J.M. and Meagher, R.B. *Sequence-based identification of T-DNA insertion mutations in* Arabidopsis: *actin mutants* act2–1 *and* act4–1 613
McPherson, M.J. *see* Urwin, P.E.
Meagher, R.B. *see* McKinney, E.C.
Meeks-Wagner, D.R. *see* Kelly, A.J.
Meens, R. *see* Gachotte, D.
Mena, M., Mandel, M.A., Lerner, D.R., Yanofsky, M.F. and Schmidt, R.J. *A characterization of the MADS-box gene family in maize* 845
Mendel, R.R. *see* Stallmeyer, B.
Messing, J. *see* Swarup, S.
Messing, J. *see* Wu, L.
Meyer, P. *see* ten Lohuis, M.
Michel, D. *see* Tacke, E.
Miller, S.S. *see* Vance, C.P.
Mitsukawa, N. *see* Liu, Y.-G.
Miyanishi, M. *see* Fan, H.
Monties, B. *see* Atanassova, R.
Monties, B. *see* Van Doorsselaere, J.
Moritz, R.L. *see* Mau, S.-L.
Motto, M. *see* Tacke, E.
Müller, A. *see* ten Lohuis, M.
Mullineaux, P. *see* Creissen, G.
Mullineaux, P.M. *see* Broadbent, P.
Mundy, J. *see* Jach, G.
Müntz, K. *see* Artsaenko, O.
Mur, L. *see* Bi, Y.-M.
Murray, J.A.H. *see* Kilby, N.J.

Nagao, R.T. *see* Hong, J.C.
Nakamura, K. *see* Matsuoka, K.
Nerlich, A. *see* Stallmeyer, B.
Neuenschwander, U., Vernooij, B., Friedrich, L., Uknes, S., Kessmann, H. and Ryals, J. *Is hydrogen peroxide a second messenger of salicylic acid in systemic acquired resistance?* 227
Neuhaus, G. *see* Kost, B.
Nick, P., Lambert, A.-M. and Vantard, M. *A microtubule-associated protein in maize is expressed during phytochrome-induced cell elongation* 835
Niedenhof, I. *see* ten Lohuis, M.
Nield, J. *see* Li, X.
Nieto, C. *see* Solano, R.
Niwa, Y. *see* Sheen, J.
Norcott, K.A. *see* Thomas, C.M.

Ohyama, K. *see* Kohchi, T.
Olsson, A., Johansson, F., Sommarin, M. and Larsson, C. *Multiple regulatory sites in the C-terminal autoinhibitory domain of the plasma membrane H^+-ATPase* 959
Oosumi, T. *see* Liu, Y.-G.

Parish, R.W. *see* Li, S.F.
Parmar, P.N. and Brearley, C.A. *Metabolism of 3- and 4-phosphorylated phosphatidylinositols in stomatal guard cells of* Commelina communis *L.* 425
Paz-Ares, J. *see* Solano, R.
Peisker, M. *see* Artsaenko, O.
Petit-Conil, M. *see* Van Doorsselaere, J.
Picard, G. *see* Creusot, F.
Pickett, F.B. *see* Timpte, C.
Pikaard, C.S. *see* Doelling, J.H.
Pilate, G. *see* Van Doorsselaere, J.
Pinsdorf, E. *see* Jach, G.
Polisensky, D.H. *see* Antosiewicz, D.M.
Potrykus, I. *see* Kost, B.
Pruitt, R.E. *see* Hulskamp, M.
Pryor, A. *see* Roberts, J.K.
Pu, Z.-Y. *see* Mau, S.-L.
Puigdomènech, P. *see* Torres, M.-A.

Quail, P.H. *see* Dehesh, K.

Raesecke, H.-R. *see* Görlach, J.
Rao, K.V. *see* Lyznik, L.A.
Reid, J.S.G. *see* Whitney, S.E.C.
Reynolds, H. *see* Creissen, G.
Ride, J.P. *see* Franklin-Tong, V.E.
Rigau, J. *see* Torres, M.-A.
Roberts, J.K. and Pryor, A. *Isolation of a flax* (Linum usitatissimum) *gene induced during susceptible infection by flax rust* (Melampsora lini) 1
Roberts, K. *see* Stacey, N.J.
Roberts, K. *see* Tanimoto, M.
Roberts, S.K. and Tester, M. *Inward and outward K^+-selective currents in the plasma membrane of protoplasts from maize root cortex and stele* 811
Robinson, D.L. *see* Vance, C.P.
Rossignol, M. *see* Masson, F.
Rudloff, S. *see* Dietz, K.-J.
Ryals, J. *see* Neuenschwander, U.

Saindrenan, P. *see* Baillieul, F.
Salamini, F. *see* Tacke, E.
Samac, D.A. *see* Vance, C.P.
Samach, A., Broday, L., Hareven, D. and Lifschitz, E. *Expression of an amino acid biosynthesis gene in tomato flowers: developmental upregulation and MeJa response are parenchyma-specific and mutually compatible* 391
Sarhan, F. *see* Houde, M.
Schell, J. *see* Jach, G.
Schiemann, J. *see* Stallmeyer, B.
Schmelzer, E. *see* Logemann, E.
Schmid, J. *see* Görlach, J.
Schmidt, R.J. *see* Mena, M.
Schnorf, M. *see* Kost, B.
Schöffl, F. *see* Lee, J.H.

Schrauwen, J. *see* Weterings, K.
Schröder, J. *see* Logemann, E.
Schroeder, J.I. *see* Kelly, W.B.
Scofield, S.R. *see* Kunze, R.
Sekine, M. *see* Setiady, Y.Y.
Setiady, Y.Y., Sekine, M., Hariguchi, N., Yamamoto, T., Kouchi, H. and Shinmyo, A. *Tobacco mitotic cyclins: cloning, characterization, gene expression and functional assay* 949
Shaw, M.J. *see* Jackson, J.A.
Sheen, J., Hwang, S., Niwa, Y., Kobayashi, H. and Galbraith, D.W. *Green-fluorescent protein as a new vital marker in plant cells* 777
Shi, J., Gonzales, R.A. and Bhattacharyya, M.K. *Characterization of a plasma membrane-associated phosphoinositide-specific phospholipase C from soybean* 381
Shinmyo, A. *see* Setiady, Y.Y.
Shirley, B.W., Kubasek, W.L., Storz, G., Bruggemann, E., Koornneef, M., Ausubel, F.M. and Goodman, H.M. *Analysis of* Arabidopsis *mutants deficient in flavonoid biosynthesis* 659
Sidebottom, C. *see* Edwards, A.
Simpson, R.J. *see* Mau, S.-L.
Smith, A.M. *see* Edwards, A.
Smith, L.G. *see* Dehesh, K.
Smyth, D.R. *see* Bennett, S.R.M.
Snaith, M.R. *see* Kilby, N.J.
Solano, R., Nieto, C. and Paz-Ares, J. *MYB.Ph3 transcription factor from* Petunia hybrida *induces similar DNA-bending/distortions on its two types of binding site* 673
Sommarin, M. *see* Olsson, A.
Somssich, I.E. *see* Logemann, E.
Stacey, N.J., Roberts, K., Carpita, N.C., Wells, B. and McCann, M.C. *Dynamic changes in cell surface molecules are very early events in the differentiation of mesophyll cells from* Zinnia elegans *into tracheary elements* 891
Stallmeyer, B., Nerlich, A., Schiemann, J., Brinkmann, H. and Mendel, R.R. *Molybdenum co-factor biosynthesis: the* Arabidopsis thaliana *cDNA* cnx1 *encodes a multifunctional two-domain protein homologous to a mammalian neuroprotein, the insect protein Cinnamon and three* Escherichia coli *proteins* 751
Stiefel, V. *see* Torres, M.-A.
Stone, B.A. *see* Bulone, V.
Storz, G. *see* Shirley, B.W.
Sugita, M. *see* Fan, H.
Sugiura, M. *see* Fan, H.
Sussex, I.M. *see* Williams, M.E.
Swarup, S., Timmermans, M.C.P., Chaudhuri, S. and Messing, J. *Determinants of the high-methionine trait in wild and exotic germplasm may have escaped selection during early cultivation of maize* 359

Tacke, E., Korfhage, C., Michel, D., Maddaloni, M., Motto, M., Lanzini, S., Salamini, F. and Döring, H.-P. *Transposon tagging of the maize* Glossy2 *locus with the transposable element* En/Spm 907
Tanimoto, M., Roberts, K. and Dolan, L. *Ethylene is a positive regulator of root hair development in* Arabidopsis thaliana 943
Tate, B.F. *see* Huang, C.-H.
ten Lohuis, M., Müller, A., Heidmann, I., Niedenhof, I. and Meyer, P. *A repetitive DNA fragment carrying a hot spot for de novo DNA methylation enhances expression variegation in tobacco and petunia* 919
Tepperman, J.M. *see* Dehesh, K.
Tester, M. *see* Roberts, S.K.
Theologis, A. *see* Abel, S.
Thoiron, S. *see* Lobréaux, S.
Thomas, C.M., Vos, P., Zabeau, M., Jones, D.A., Norcott, K.A., Chadwick, B.P. and Jones, J.D.G. *Identification of amplified restriction fragment polymorphism (AFLP) markers thightly linked to the tomato* Cf-9 *gene for resistance to* Cladosporium fulvum 785
Thordal-Christensen, H. *see* Zhang, Z.
Timmermans, M.C.P. *see* Swarup, S.
Timpte, C., Lincoln, C., Pickett, F.B., Turner, J. and Estelle, M. *The* AXR1 *and* AUX1 *genes of* Arabidopsis *function in separate auxin-response pathways* 561
Tollier, M.-T. *see* Atanassova, R.
Tollier, M.-T. *see* Van Doorsselaere, J.
Torres, M.-A., Rigau, J., Puigdomènech, P. and Stiefel, V. *Specific distribution of mRNAs in maize growing pollen tubes observed by whole-mount* in situ *hybridization with non-radioactive probes* 317
Traut, A. *see* McKinney, E.C.
Turner, J. *see* Timpte, C.
Twell, D. *see* Weterings, K.

Ueda, T. *see* Wu, L.
Uknes, S. *see* Neuenschwander, U.
Urwin, P.E., Atkinson, H.J., Waller, D.A. and McPherson, M.J. *Engineered oryzacystatin-I expressed in transgenic hairy roots confers resistance to* Globodera pallida 121

Valero, D. *see* Fray, R.G.
van Brussel, A. *see* Vijn, I.
Van Doorsselaere, J., Baucher, M., Chognot, E., Chabbert, B., Tollier, M.-T., Petit-Conil, M., Leplé, J.-C., Pilate, G., Cornu, D., Monties, B., Van Montagu, M., Inzé, D., Boerjan, W. and Jouanin, L. *A novel lignin in poplar trees with a reduced caffeic acid/5-hydroxyferulic acid* O*-methyltransferase activity* 855
van Kammen, A. *see* Vijn, I.
Van Montagu, M. *see* Van Doorsselaere, J.
Vance, C.P., Miller, S.S., Gregerson, R.G., Samac, D.A., Robinson, D.L. and Gantt, J.S. *Alfalfa NADH-dependent glutamate synthase: structure of the gene and importance in symbiotic* N_2 *fixation* 345
Vantard, M. *see* Nick, P.
Vernooij, B. *see* Neuenschwander, U.
Vielle, J.-Ph., Burson, B.L., Bashaw, E.C. and Hussey, M.A. *Early fertilization events in the sexual and aposporous egg apparatus of* Pennisetum ciliare *(L.) Link* 309
Vijn, I., Martinez-Abarca, F., Yang, W.-C., das Neves, L., van Brussel, A., van Kammen, A. and Bisseling, T. *Early nodulin gene expression during Nod factor-induced processes in* Vicia sativa 111
Viotti, A. *see* Lund, G.
Visser, R.G.F. *see* Edwards, A.
von Wiegen, P. *see* Kranz, E.
Vos, P. *see* Thomas, C.M.

Wallace, A. *see* Fray, R.G.
Waller, D.A. *see* Urwin, P.E.
Watanabe, N. *see* Matsuoka, K.
Wehrli, R. *see* Görlach, J.
Weiler, E.W. *see* Artsaenko, O.
Wellburn, A.R. *see* Broadbent, P.

Wells, B. *see* Stacey, N.J.
Weterings, K., Schrauwen, J., Wullems, G. and Twell, D. *Functional dissection of the promoter of the pollen-specific gene* NTP303 *reveals a novel pollen-specific, and conserved cis-regulatory element* 55
Whitney, S.E.C., Brigham, J.E., Darke, A.H., Reid, J.S.G. and Gidley, M.J. In vitro *assembly of cellulose/xyloglucan networks: ultrastructural and molecular aspects* 491
Whittier, R.F. *see* Liu, Y.-G.
Williams, M.E. and Sussex, I.M. *Development regulation of ribosomal protein L16 genes in* Arabidopsis thaliana 65
Wu, L., Ueda, T. and Messing, J. *The formation of mRNA 3'-ends in plants* 323
Wu, S.-C. *see* Logemann, E.
Wullems, G. *see* Weterings, K.

Xue, Y. *see* Creissen, G.

Yakura, K. *see* Fan, H.
Yamamoto, T. *see* Setiady, Y.Y.
Yang, W.-C. *see* Vijn, I.
Yanofsky, M.F. *see* Mena, M.

Zabeau, M. *see* Thomas, C.M.
Zhang, Z., Collinge, D.B. and Thordal-Christensen, H. *Germin-like oxalate oxidase, a H_2O_2-producing enzyme, accumulates in barley attacked by the powdery mildew fungus* 139
Zimmern, D. *see* Haley, A.
zur Nieden, U. *see* Artsaenko, O.

Subject index

α-helix 963
α-tubulin 317
ABI3 331
abscisic acid (ABA) 37, 745
Ac 45
Acetobacter aceti ssp. *xylinum* 491
acid growth 795
act2-1 613
act4-1 613
active oxygen species 139
AFLP 785
AGP protein 269
alternative
  promoter 541
  splicing 435, 451, 827
anthocyanin 653
antibiotic selectable marker 457
antibody 745
antisense 283
  RNA 465
apomixis 309
apospory 309
Arabidopsis thaliana 37, 369, 407, 457, 505, 541, 561, 613, 623, 637, 659, 703, 763, 771, 777, 943, 963
arabinogalactan protein 891
auxin 65, 561
auxin-induced proteins 87

(1→3)-β-glucan 213
β-1,3-glucanase 97
β-carotene 417
β-glucuronidase protein fusions 87
barley (*Hordeum vulgare*) 521, 531
biochemical mutant 407
bioluminescence 155
biomarkers for leaf aging 595
bombardment 777
Brassica 827
Brassica napus 803
brefeldin A 877
broad bean rDNA 295
bZIP motif 199

c-myb 963
C-terminal autoinhibitory domain 959
C4 plants 435
Ca^{2+} 299
caffeic acid 855
calcium 257, 479
capsanthin 417
carotenoids 693
catalase 235
CCD camera 155
cDNA encoding 269
cell
  cycle-regulated expression 949
  division 9
  elongation 835
  expansion 795
  sorting 777
  wall 9
  wall architecture 491, 891
cell–cell recognition 703
cell-signalling 425
cellulose 491
Cf-9 785
chalcone synthase 369
chitinase 97
chloroplasts 167
chorismate synthase genes 451
chromosome evolution 359
CIC library 763
cis-regulatory element 55
Cladosporium fulvum 785
cln yeat rescue assay 949
clonal sectors 637
cnx 751
cold acclimation 583
complementation 751
confocal imaging 299
consensus sequence 295
cosuppression 465
cryptochrome 653

δ-zein genes 359
Δ7-sterol-C-5-desaturase 407
defence response 139
dehydration inducible 37
development 77
differentiation 891
dihydrodipicolinate synthase 733
disease resistance 785
DNA methylation 571, 919
DNA-bending 673
DNA-binding 963
DNA-binding protein 25, 199
DNA-distortion 673
dominant mutation 45
duplicate loci 845
dwarf plants 693

early nodulins 11
eceriferum 703
egg 9
  apparatus 309
endoplasmic reticulum 541
epitope-tagging 381
equalized cDNA library 771
ERG 3 407
Erysiphe graminis 139
ethylene 595, 943
ethylene insensitive mutant etr1–1 595
expansins 795
expression 521

fatty acids 803
ferredoxin-GOGAT 345
ferritin 443
fertilization 309
Flaveria trinervia 435
flavonoid 659
flax 1
floral induction 725
flower 827
  development 505
FLP recombinase 177, 637

freezing tolerance 583
fruit ripening 417
fucosylated xyloglucan 891
fungal
  elicitors 865
  infection 865
  protection synergy 97

G-box binding factor 199
gene
  duplication 359
  expression 331
  family 751, 845
  mapping 845
  regulation 595
gibberellins 693
Globodera 121
Glossy2 gene 907
glutathione 247
glycine cleavage system 435
Golgi apparatus 877
green-fluorescent protein 777
growth dependent expression 949
GTP binding protein 479
GU-rich sequences 323
guanosine-triphosphate-binding protein 187
guard cell 187
GUS
  fusions 25
  staining 603

3-hydroxy-3-methylglutaryl-CoA reductase 541
5-hydroxyferulic acid 855
H^+-ATPase 521, 959
H-protein gene 435
H_2O_2 235
heat shock
  promoter 177
  proteins 603
  response 603
  transcription factor 603
high methionine phenotype 359
Hordeum vulgare 139
HRGP 317
hydrogen peroxide 227
hydroxyproline 877
hypocotyl 653

immunocytochemistry 25
immunolocalization 583
in situ hybridization 147
in vitro
  fertilization 9
  transcription 295
inducible 1
inflorescence 845
  development 505
initiator element 683
INR 683
inward rectifying K^+ channel 479
iron 443
isoforms 283
Italian ryegrass (*Lolium multiflorum*) 213

K^+ channel, inward rectifier 187
kinase 37
kinetics 959

lateral roots 65
leaf growth 795
light-regulation 369
lignin 855
  analysis 465
lineage analysis 637
low-light imaging 155
luciferase 155
lycopene cyclase 417
lysine overproduction 733
lysophosphatidylcholine 959

MADS-box 845
maize 9, 177, 317, 443, 777, 835, 845, 907
  endosperm 571
  enzyme 317
MAPs 835
mastoparan 187
Medicago sativa 345
megagametophyte 309
meristem 65
methyl jasmonate 391
methyl-esterified pectin 891
mevalonic acid 541
microprojectile bombardment 55
microtubules 835
mitochondria 167
molybdenum cofactor 751
molybdopterin 751
monocotyledon 213
multiple *cis*-acting sites 323
mutagenesis 87
mutants 369, 653, 659
MYB 673
myb 963

NaCl 37
NADH-GOGAT 345
nematode 121
NH^{+4} assimilation 345
Nicotiana 637
  alata 269
  tabacum 247
  tabacum cv. Samsun NN 551
nitrate reductase 751
Nod factor 111
nodule formation 111
non-equilibrium labelling 425
non-radioactive probes 317
Ntcyc cDNA 949
Ntcyc cyclin 949
nuclear localization signals 87
nucleolus 683
nutritional value 733
nycthemeron 77

O-glycosylation 877
O-methylation 855
O-methyltransferase 465
oleoyl-CoA 803
oryzacystatin 121

oxalate oxidase 139
oxidative stress 443
ozone 247

p gene 963
paraquat 247
parental imprinting 571
parthenogenesis 309
patch clamping 811
pathogenesis-related proteins 227
pCa, cytoplasmic 187
PCR 771
  cloning 949
pepper 417
pericycle 65
Petrodelinum crispum 865
petunia 673, 919
pH, cytoplasmic 187
Phalaris coerulescens 133
Phaseolus vulgaris 331
phenylpropanoid pathway 465
phosphatidylinositols 425
phosphoinositide-specific phospholipase C 381
phosphoinositides 257
phospholipase C 257
phosphoserine 715
photoperiodic induction 715
photoreceptor 653
phytochrome 835
  A promoter 25
phytoene synthase 693
Phytophthora megasperma 551
PI-PLC gene family 381
PIN-FORMED 505
PINOID 505
Pisum sativum 247
plant
  gene 733
  hormone 561
  hormone action 87
  isoprenoid biosynthesis 541
  mRNA 323
  selectable marker 733
  transformation 283
  viral movement proteins 715
plasma membrane 77, 381, 959
plasticity 77
polar auxin transport 505
polarity 9
pollen 317
  hydration 703
  tubes 299
pollen-specific gene 55
pollen–stigma interaction 703
poly(A) signal 323
polyadenylation 323
polysaccharide synthesis 213
pool-sizes 425
poplar trees 855
post-transcriptional regulation 435
potato 933
  tuber 283
PR
  gene expression 235
  proteins 551
PR-1 139
primordium 725
product entrapment 213
programmed cell death 595
promoter analysis 55
promoter/GUS fusions 65
protein
  engineering 121
  expression 77
  phosphorylation 715
  serine 715
proteins 583
protoplast 777
Pyrus communis 269

quality breeding 359

rDNA 683
recombination events 457
regulation 959
reporter gene 155
resistance 121
Rhizobium 111
ribosomal protein 65
RIP 97
RNA polymerase I 295, 683
root 37
  hair 943
  hair deformation 111
  nodules 345
  protoplasts 811
rRNA 683
rust 1
*Rx*1-mediated virus 933

S locus glycoprotein 827
S locus receptor kinase 827
salicylate hydroxylase 235
salicylic acid 227, 235
second messenger 479
seed maturation 331
self-incompatibility 299, 827
senescence-associated genes 595
shoot apical meristem 147
signal transduction 257, 299, 479
signalling 551
site-specific recombination 177, 637
soybean 199, 381
species specificity 295
spliceosome 531
starch
  granule 283
  synthase 283
sterol 407
stomata 479
  guard cells 425
streptomycin resistance 45
subcellular localization 381
substrate-cycling 425
subunit E 521
susceptible 1
suspension cultures 213
systemic acquired resistance 227, 235

T-DNA flanking sequence 457

TAIL-PCR 457
Tamarindus indica 491
targeting 167
TCH3 accumulation 623
teratology 725
thermotolerance 603
thioredoxin 133
threonine
  deaminase 391
  kinases 715
tissue- end species-specificity 323
TMV 551
tobacco 147, 227, 919
  leaf 77
  protoplasts 715
  rDNA 295
tomato 693, 785
  (*Lycopersicon esculentum* Mill.) 451
  (*Lycopersicon esculentum*) 795
  flowers 391
tonoplast 521
transcription
  factors 199, 331, 673
transformation 155
transgenic
  Arabidopsis 603
  plants 167, 345, 369, 745
  roots 121
  tobacco 45, 55
transient
  expression assay 55
  transfection assays 25
transparent testa 659
transposable element 45
transposase 45
transposon tagging 907

UV light 865

vacuole 521, 877
Vicia faba 187
Vicia sativa 111
Vp1 331

wall extension 795
wax synthesis 907
wheat 583
wheat (*Triticum aestivium*) 531
whole-mount *in situ* hybridization 317
wilty phenotype 745

xyloglucan 491

YAC library 763

Zea mays 45, 571, 811
zein genes 571
Zinnia elegans 891
zygote 9